

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019435**Date Inspected:** 10-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai , China

<b>CWI Name:</b>	Shi Lei (east) Bao Lei Zhang (west)			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	OBG		

**Summary of Items Observed:**

Summary of Items Observed: On this day Caltrans OSM Quality Assurance (QA) Inspector Kenneth Riley was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China.

**PAUT**

QA Inspector performed initial Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after conventional UT was performed on tack welded areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

DP3136-001(PL3332 B): 17 tack weld location found compliant and 2 tack weld locations found non-compliant.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC's reference for repair. See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets dated 10th June, 2010 for further information on PAUT inspections.

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

## Bay 16

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member(s) are identified as; hw-saw1-18m (e)-1-2, 3/ hw-saw1-18m(e)-2-2,3/ hw-saw1-18m(e)-3-2,3/ hw-saw1-28m(e)-1-2,3/ hw-saw1-28m(e)-2-2,3/ hw-saw1-28m(e)-3-2,3.

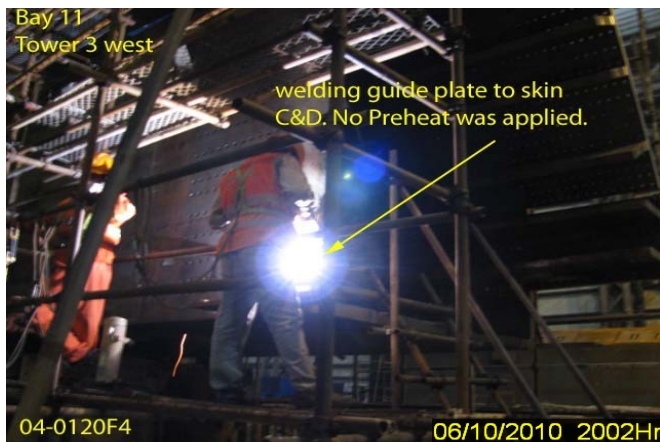
## Bay 11

This QA Inspector observed the following work in progress: ZPMC was attaching guide plates to the Tower lift 3, west without preheating the 90mm corner joint C@D. As this QA Inspector verified the welder qualifications it was noted that the welder was not certified in the 3F (vertical) position which the tack welds were being placed in. Upon further observation ZPMC was using unidentified material in there erection aide for the guide plates that were welded to the Skin of Tower Lift 3 west. An incident report for these issues was forwarded on this day.

## Trial Assembly

This QA Inspector observed the following work in progress: SMAW welding of weld joint 0BW8B located on PCMK- 8AW-8BW. Welder is identified as 047864 for Critical Weld Repair (CWR) B-CWR 1597. ZPMC QC-CWI is identified as Liu Huajie.

The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-1G(1F)-FCM-Repair.

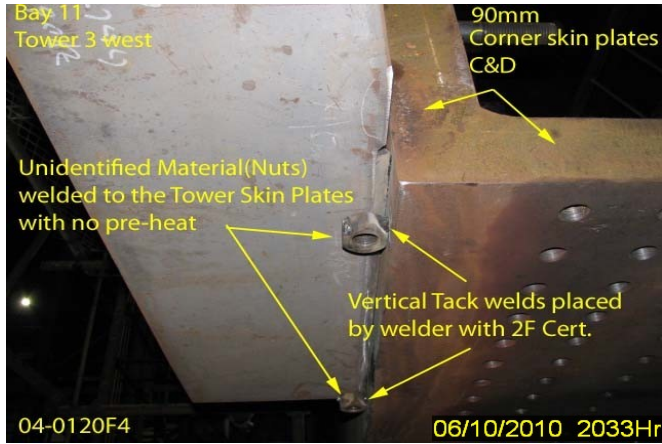


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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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### Summary of Conversations:

No Conversations This date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Riley, Ken	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon, Albert	QA Reviewer

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